



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2019-0365; Product Identifier 2019-NE-12-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Pratt & Whitney Turbofan Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for all Pratt & Whitney (PW) PW1519G, PW1521G, PW1521GA, PW1524G, PW1525G, PW1521G-3, PW1524G-3, PW1525G-3, PW1919G, PW1921G, PW1922G, PW1923G, and PW1923G-A model turbofan engines. This proposed AD was prompted by corrosion found on the high-pressure compressor (HPC) front hub, which could result in certain HPC front hubs cracking before reaching their published life limit. This proposed AD would require revisions to the Airworthiness Limitations Section (ALS) of the manufacturer's Instructions for Continued Airworthiness (ICA) and air carrier's approved Continued Airworthiness Maintenance Programs (CAMP) to incorporate new or more restrictive airworthiness limitations. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Pratt & Whitney, 400 Main Street, East Hartford, CT, 06118; phone: 800-565-0140; fax: 860-565-5442; email: [help24@pw.utc.com](mailto:help24@pw.utc.com); internet: <http://fleetcare.pw.utc.com>. You may view this service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781-238-7759.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0365; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Kevin M. Clark, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: 781-238-7088; fax: 781-238-7199; email: [kevin.m.clark@faa.gov](mailto:kevin.m.clark@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2019-0365; Product Identifier 2019-NE-12-AD” at the

beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. The FAA will consider all comments received by the closing date and may amend this NPRM because of those comments.

The FAA will post all comments received, without change, to <http://www.regulations.gov>, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about this NPRM.

### **Discussion**

The FAA was notified that corrosion was found on an HPC front hub during a routine engine overhaul. This corrosion, also found beneath the anti-corrosion coating, reduces the low-cycle fatigue capability and can occur even during engine downtime. As a result, PW decreased the certified life of the affected HPC front hub. This condition, if not addressed, could result in uncontained HPC front hub release, damage to the engine, and damage to the airplane.

### **Related Service Information under 1 CFR part 51**

The FAA reviewed PW Service Bulletin (SB) PW1000G-A-72-00-0109-00A-930A-D, Issue No. 001, dated April 2, 2019 (“PW SB PW1000G-A-72-00-0109-00A-930A-D”), and PW SB PW1000G-A-72-00-0058-00B-930A-D, Issue No. 002, dated May 10, 2019 (“PW SB PW1000G-A-72-00-0058-00B-930A-D”). PW SB PW1000G-A-72-00-0109-00A-930A-D describes the revised maximum cycle limits of the HPC front hub for PW PW1500G engines. PW SB PW1000G-A-72-00-0058-00B-930A-D describes the revised maximum cycle limits of the HPC front hub for PW PW1900 engines. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## **FAA’s Determination**

The FAA is proposing this AD because it evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

## **Proposed AD Requirements**

This proposed AD would require revisions to the ALS of the manufacturer's ICA and air carrier's approved CAMP to incorporate revised airworthiness limitations.

## **Costs of Compliance**

The FAA estimates that this proposed AD affects 18 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

### **Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Revise the ALS and CAMP	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$1,530

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to engines, propellers, and associated appliances to the Manager, Engine and Propeller Standards Branch, Policy and Innovation Division.

### **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**Pratt & Whitney:** Docket No. FAA-2019-0365; Product Identifier 2019-NE-12-AD.

#### **(a) Comments Due Date**

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to Pratt & Whitney (PW) PW1519G, PW1521G, PW1521GA, PW1524G, PW1525G, PW1521G-3, PW1524G-3, PW1525G-3, PW1919G, PW1921G, PW1922G, PW1923G, and PW1923G-A model turbofan engines.

#### **(d) Subject**

Joint Aircraft System Component (JASC) Code 7230, Turbine Engine Compressor Section.

#### **(e) Unsafe Condition**

This AD was prompted by corrosion found on the high-pressure compressor (HPC) front hub, which could result in certain HPC front hubs cracking before reaching their published life limit. The FAA is issuing this AD to prevent failure of the HPC front hub. The unsafe condition, if not addressed, could result in uncontained HPC front hub release, damage to the engine, and damage to the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Action**

Within 90 days after the effective date of this AD, revise the Airworthiness Limitations Section of the PW Instructions for Continued Airworthiness, and for air carrier operations, the approved continuous airworthiness maintenance program, with the following maximum cycle limits for HPC front hub, part number 30G3210.

(1) For PW PW1519G, PW1521G, PW1521GA, PW1524G, PW1525G, PW1521G-3, PW1524G-3, and PW1525G-3 model turbofan engines, use the cycle limits established in Table 3, Revision to Table of Limits, of PW Service Bulletin (SB) PW1000G-A-72-00-0109-00A-930A-D, Issue No. 001, dated April 2, 2019.

(2) For PW PW1919G, PW1921G, PW1922G, PW1923G, and PW1923G-A model turbofan engines, use the cycle limits established in Table 3, Revision to Table of Limits, of PW SB PW1000G-A-72-00-0058-00B-930A-D, Issue No. 002, dated May 10, 2019.

**(h) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i)(1) of this AD. You may email your request to: ANE-AD-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(i) Related Information**

(1) For more information about this AD, contact Kevin M. Clark, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: 781-238-7088; fax: 781-238-7199; email: kevin.m.clark@faa.gov.

(2) For service information identified in this AD, contact Pratt & Whitney, 400 Main Street, East Hartford, CT, 06118; phone: 800-565-0140; fax: 860-565-5442; email: help24@pw.utc.com; internet: <http://fleetcare.pw.utc.com>. You may view this referenced service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781-238-7759.

Issued in Burlington, Massachusetts, on May 24, 2019.

Karen M. Grant,  
Acting Manager, Engine & Propeller Standards Branch,  
Aircraft Certification Service.  
[FR Doc. 2019-11285 Filed: 5/30/2019 8:45 am; Publication Date: 5/31/2019]